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☐ 1: K01760. HSV1 (KOS) glycop...[gi:330082]

Related Sequences, Protein, PubMed, Taxonomy

LOCUS HS1GB 3758 bp DNA linear VRL 02-AUG-1993  
 DEFINITION HSV1 (KOS) glycoprotein B gene, complete cds.  
 ACCESSION K01760  
 VERSION K01760.1 GI:330082  
 KEYWORDS glycoprotein; glycoprotein B.  
 SOURCE Herpes simplex virus type 1 (strain KOS) DNA, maintained on HEL cells.  
 ORGANISM human herpesvirus 1  
 Viruses; dsDNA viruses, no RNA stage; Herpesviridae; Alphaherpesvirinae; Simplexvirus.  
 REFERENCE 1 (bases 1 to 3758)  
 AUTHORS Bzik,D.J., Fox,B.A., DeLuca,N.A. and Person,S.  
 TITLE Nucleotide sequence specifying the glycoprotein gene, gB, of Herpes simplex virus type 1  
 JOURNAL Virology 133, 301-314 (1984)  
 MEDLINE 84174058  
 REFERENCE 2 (bases 1 to 3321)  
 AUTHORS Bzik,D.J., Debroy,C., Fox,B.A., Pederson,N.E. and Person,S.  
 TITLE The nucleotide sequence of the gB glycoprotein gene of HSV-2 and comparison with the corresponding gene of HSV-1  
 JOURNAL Virology 155, 322-333 (1986)  
 MEDLINE 87071654  
 REFERENCE 3 (bases 1 to 3311)  
 AUTHORS Pederson,N.  
 JOURNAL Unpublished (1987)  
 COMMENT [2] revises [1].  
 [3] revises [1],[2].  
 Draft entry and computer-readable sequence for [3] kindly provided by N.Pederson 14-APR-1987.  
 There are 4 antigenically distinct glycoproteins in HSV1 infected cells -- gB, gC, gD and gE. The glycoprotein formerly known as gA is now know to be a precursor to gB and has been renamed pgB. gB is the only glycoprotein that is known to be required for viral growth. The gB mRNA probably runs about from bases 257 to 3300. Strand shown runs in direction opposite to that of the standard HSV map, from mu .370 to .345.  
 FEATURES Location/Qualifiers  
 source 1..3758  
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 /db\_xref="taxon:10298"  
 CDS 548..3262  
 /note="glycoprotein B precursor (pgB)"  
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 HSV-1  
 SB 1

HSV2 SB

DARSVPYDEFVLATGDFVYMSPFYGYREGSHTTEHTTYAADRFKQVDGFYARDLTTKA  
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TTFTTNLT EYPLSRVDLGDICGKDARDAMDRI FARRYNATHIKVGQPQYYQANGGFLI  
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FVPLEVYTRHEIKDSGLLDYTEVQRRNQLHDLRFADIDTVIHADANAAMFAGLGAFFE  
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variation

1364

/note="g in KOS; a in mutant tsJ20"

variation

1676

/note="c in KOS; t in mutant tsJ12"

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//

Revised: October 24, 2001.

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## Nucleotide sequence specifying the glycoprotein gene, gB, of herpes simplex virus type 1.

**Bzik DJ, Fox BA, DeLuca NA, Person S.**Related  
Resources

The nucleotide sequence thought to specify the glycoprotein gene, gB, of the KOS strain of herpes simplex virus type 1 (HSV-1) has been determined. A 3.1-kilobase (kb), viral-specified RNA was mapped to the left half of the BamHI-G fragment (0.345 to 0.399 map units). TATA, CAT-box, and possible mRNA start sequences characteristic of HSV-1 genes are found near 0.368 map units. The first available ATG codon is at 0.366 and the first in-phase chain terminator at 0.348 map units. A polyA-addition signal (AATAAA) occurs 17 nucleotides past the chain terminator. Translation of these sequences would yield a 100.3-kilodalton (kDa) polypeptide characterized by a 5' signal sequence, nine N-linked saccharide addition sites, a strongly hydrophobic membrane-spanning sequence, and a highly charged 3' cytoplasmic anchor sequence. Two mutants of KOS, tsJ12 and tsJ20, that are temperature-sensitive for viral growth and for the production of gB, have been physically mapped to 0.357 to 0.360 and 0.360 to 0.364 map units, respectively (DeLuca et al., in preparation). The nucleotide sequence of the mutants was determined in these regions. In both cases a single amino acid replacement within the 100.3-kDa polypeptide is predicted from the sequence analysis.

### MeSH Terms:

- Amino Acid Sequence
- Base Sequence
- Cell Line
- DNA Restriction Enzymes
- DNA, Recombinant/analysis
- Genes, Structural\*
- Genes, Viral\*
- Human
- Lung/embryology
- Nucleic Acid Hybridization
- Simplexvirus/genetics\*
- Support, Non-U.S. Gov't
- Support, U.S. Gov't, P.H.S.

## Substances:

- DNA Restriction Enzymes
- DNA, Recombinant

## Secondary source id:


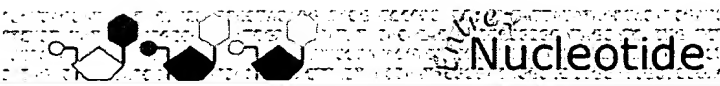
- GENBANK/K01760

PMID: 6324454 [PubMed - indexed for MEDLINE]



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☐ 1: M21629. Herpes simplex vi...[gi:330109]

Related Sequences, Protein, PubMed, Taxonomy

LOCUS HSI1GLYB 9756 bp DNA linear VRL 01-JUL-1994

DEFINITION Herpes simplex virus type 1 glycoprotein B gene (gB-1), complete cds.

ACCESSION M21629

VERSION M21629.1 GI:330109

KEYWORDS glycoprotein B.

SOURCE Herpes simplex virus type 1 DNA.

ORGANISM human herpesvirus 1

Viruses; dsDNA viruses, no RNA stage; Herpesviridae; Alphaherpesvirinae; Simplexvirus.

REFERENCE 1 (bases 1 to 9756)

AUTHORS Hammerschmidt, W., Conraths, F., Mankertz, J., Pauli, G., Ludwig, H. and Buhk, H. J.

TITLE Conservation of a gene cluster including glycoprotein B in bovine herpesvirus type 2 (BHV-2) and herpes simplex virus type 1 (HSV-1)

JOURNAL Virology 165 (2), 388-405 (1988)

MEDLINE 88306231

FEATURES

source Location/Qualifiers

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BASE COUNT 1662 a 3321 c 3202 g 1571 t

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